

REMARKS

I. General

Claims 1-25, 28-31, 33, and 34 are presently pending in the application. Claims 26, 27, and 32 are canceled without prejudice. The issues in the current Office Action are as follows:

- Claims 12-14 and 17 are rejected under 35 U.S.C. § 101.
- Claims 2-5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.
- Claims 1, 6, 7, and 10-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by US 6,491,634 (hereinafter *Leavitt*).
- Claims 2-3, 5, 8-9, and 25-31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Leavitt* in view of US 6,695,783 (hereinafter *Henderson*).
- Claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Leavitt* in view of US 5,000,052 (hereinafter *Sipin*).
- Claims 14 and 19-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Leavitt* and *Sipin* in further view of *Henderson*.

Applicant appreciates the courtesy and professionalism extended by the Examiner thus far. Applicant hereby traverses the rejections and requests reconsideration and withdrawal in light of the remarks contained herein.

II. Claim Objections

The summary page of the office action indicates that claims 27-28 and 32-34 are objected to, but there is no mention of the objection within the Detailed Action section. Applicant left a

voice mail with the Examiner requesting a call back about claims 27-28 and 32-34. In response to Applicant's voice mail, the Examiner left a voicemail on November 18 stating that claims 27-28 and 32-34 are objected to but are otherwise allowable.

Additionally, in a telephone call on December 3, the Examiner indicated that claim 21 is objected to but otherwise allowed, whereas claims 12-18 and 22-24 are all subject to the 35 U.S.C. § 101 rejection currently articulated only with respect to claims 12-14 and 17. Applicant thanks the Examiner for this indication of allowability.

III. Claim Amendments

Claim 1 is amended to recite, in part, "each respective system of the plurality of systems has a circuit configuration that uses a different number of signal channels for further processing by said application specific integrated circuit than do other systems of the plurality of systems." Support may be found, at least, at paragraphs 0021 and 0022 of the specification. Thus, no new matter is added.

Claim 10 recites, in part, "an application specific integrated circuit (ASIC) adapted for use in a plurality of different circuit configurations." Support may be found, at least, at paragraphs 0021 and 0022 of the specification. Thus, no new matter is added.

Claim 25 is amended to include the features of claims 26 and 27, thereby rewriting claim 27 in independent form. Thus, no new matter is added. The amendment does not narrow the scope of claim 27.

Claim 28 is amended to be consistent with the amendments to claim 25. No new matter is added.

Claim 29 is amended to include the features of claim 32, thereby rewriting claim 32 in independent form. Thus, no new matter is added. The amendment does not narrow the scope of claim 32.

Claims 33 and 34 are amended to be consistent with the amendments to claim 29. Thus, no new matter is added.

IV. Claim Rejections

A. 35 U.S.C. § 101 Rejection

On pages 2-3 of the Office Action, claims 12-14 and 17 are rejected under 35 U.S.C. § 101 as not falling within one of the four statutory categories of invention. Applicant respectfully traverses the rejection.

Claims 12, 13, and the various claims depending from claim 12 recite methods that transform an ASIC and are, therefore, patent eligible. Specifically, claims 12 and 13 both recite, in part, “configuring an ASIC...to provide said determined number of channels.” The rejection states that claims 12 and 13 are not tied to a particular machine to accomplish the claimed action and that the claimed action does not transform underlying subject matter. Office Action at 3. Without conceding any of the Examiner’s assertions, it is noted that the claimed action of configuring an ASIC to provide a determined number of channels is an action that transforms the ASIC to a different state. Inasmuch as claims 12 and 13 specifically recite actions to transform underlying subject matter (the subject matter in this case being an ASIC), it is very clear that claims 12 and 13 satisfy the *Bilski* test for patent eligibility. Claims 14-18 and 22-24 depend from claim 12 and are patent eligible at least because of their dependence from claim 12.

Applicant has shown that claims 12, 13, and 17 recite patent eligible subject matter but in the interest of completeness addresses further assertions made by the Examiner in rejecting such claims. Specifically, the office action states:

“The method including step of configuring an ASIC is broad enough that the claim could be completely performed mentally, verbally or without a machine nor is any transformation apparent. For example the step of ‘configuring an ASIC adapted for use in a plurality systems’ is not tied to particular machine to configure the ASIC.”

Id. It appears that the Examiner is applying personal knowledge in making the assertion above. However, it is indeed not possible to configure an ASIC purely “mentally, verbally or without a machine.” Such statement is just wrong. Therefore, it is believed that that feature is not capable of instant and unquestionable demonstration as being well-known, as required of Official Notice by M.P.E.P. §2144.03(A), citing *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970).

Alternatively, such an assertion without documentary evidence may be appropriate if the office action provides “specific factual findings predicated on sound technical and scientific reasoning to support his or her conclusion of common knowledge.” M.P.E.P. §2144.03(B), citing, *In re Soli*, 317 F.2d 941, 946, 137 USPQ 797, 801 (CCPA 1963), and *In re Chevenard*, 139 F.2d 711, 713, 60 USPQ 239, 241 (CCPA 1943). However, because the above-quoted statement is merely an assertion, rather than reasoning, the Official Notice must fail. While Applicant has traversed the contents of the Official Notice, Applicant further respectfully requests that the Examiner provide an affidavit or publication supporting such Notice under M.P.E.P. § 2144.03(C) should the Office persist in the rejection.

B. 35 U.S.C. § 112 Rejection

On page 3 of the Office Action, claims 2-5 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses the rejection.

Claims 2-5 recite N to M signal multiplexing and N to M/2 signal multiplexing. The rejection states that claims 2-5 are unclear because the claims do not recite the respective values of N and M, for instance, whether they are equal or whether one is larger than the other. Office Action at 3. However, the rejection confuses breadth with clarity. “Breadth of a claim is not to be equated with indefiniteness.” M.P.E.P. §2173.04 (citing *In re Miller*, 441 F.2d 689, 169 USPQ 597 (CCPA 1971)). Claims 2-5 have a broad use of N and M, which while broad, is clear. Accordingly, withdrawal of the rejection is respectfully requested.

C. 35 U.S.C. § 102(b) Rejection (*Leavitt*)

On pages 4-5 of the Office Action, claims 1, 6, 7, and 10-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by *Leavitt*. Applicant respectfully traverses the rejection.

Amended claim 1 recites, in part, “each respective system of the plurality of systems has a circuit configuration that uses a different number of signal channels ... than do other systems of the plurality of systems.” The office action cites item 210 of *Leavitt* to show the claimed ASIC. Office Action at 4. However, while item 210 of *Leavitt* is used in a single system that reduces a number of signals from 48 to 6, *Leavitt* does not teach that item 210 is adapted for use in a plurality of systems where each respective system of the plurality of systems has a circuit configuration that uses a different number of signal channels ... than do other systems of the plurality of systems. Therefore, *Leavitt* does not teach the above-recited feature of amended claim 1.

Amended claim 10 recites, in part, “an application specific integrated circuit (ASIC) adapted for use in a plurality of different circuit configurations.” The office action cites item 210 of *Leavitt* to show the claimed ASIC. *Id.* However, while item 210 of *Leavitt* is used in a single system that reduces a number of signals from 48 to 6, *Leavitt* does not teach that item 210 is adapted for use in a plurality of different circuit configurations. Therefore, *Leavitt* does not teach the above-recited feature of amended claim 10.

As shown above, independent claims 1 and 10 include features that are not taught by *Leavitt*. Dependent claims 6, 7, and 11 each depend either directly or indirectly from respective independent claims 1 and 10 and, thus, inherit all of the limitations of their respective independent claims. Thus, *Leavitt* does not meet all claim limitations of claims 6, 7, and 11. It is respectfully submitted that dependent claims 6, 7, and 11 are allowable at least because of their dependence from their respective base claims for the reasons discussed above. Furthermore, various dependent claims recite features that are patentable for reasons independent of those presented above for the independent claims.

For instance, claim 6 recites, in part, “a circuit configurable to provide a cross point switch function in a first configuration of said circuit configurations and to provide a signal summer function in a second configuration of said circuit configurations.” The cited portion of *Leavitt* does not teach the claimed cross point switch function or the claimed summer function. The office action cites Figure 7A to show one or more of the claimed functions. *Id.* However, Figure 7 merely shows an apodizing profile and it is unclear what the relevance of Figure 7 is to a cross point switch function or a summer function.

Additionally, claim 7 recites, in part, “said cross-point switch function comprises selectively routing signal channels to one or more beam formers.” The office action cites the item 210 of *Leavitt* to show the claimed function. *Id.* However, *Leavitt* lists the functions that item 210 performs (power amplification, filtering, and front-end gain compensation), and the list does not include selectively routing signal channels. *Leavitt* at Col. 4, lines 1-18. Therefore, the cited portion of *Leavitt* does not teach the above-recited feature of claim 7. Accordingly, Applicant respectfully requests the withdrawal of the 35 U.S.C. § 102 rejection of claims 1, 6, 7, and 10-11.

D. 35 U.S.C. § 103(a) Rejection over *Leavitt* in view of *Henderson*

On pages 5-8 of the Office Action, claims 2-3, 5, 8-9, and 25-31¹ are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Leavitt* in view of *Henderson*. Applicant respectfully traverses the rejection.

As discussed above, *Leavitt* does not meet every aspect of independent claim 1. Dependent claims 2, 3, 5, 8, and 9 each depend either directly or indirectly from independent claim 1 and, thus, inherit all of the limitations of independent claim 1. Thus, *Leavitt* does not meet all claim limitations of claims 2, 3, 5, 8, and 9. The rejection does not rely on *Henderson* to

¹ Claims 27 and 28, while being listed as rejected as rejected are not mentioned in the reasoning of the rejection. Furthermore, the voicemail of November 19 from the examiner indicates that claims 27 and 28 are objected to but otherwise allowable. Thus, Applicant addresses this rejection assuming that claims 27 and 28 are not subject to the rejection over *Leavitt* in view of *Henderson*.

teach the features shown above to be missing from *Leavitt* with respect to claim 1. It is respectfully submitted that dependent claims 2, 3, 5, 8, and 9 are allowable at least because of their dependence from claim 1 for the reasons discussed above.

Additionally, as noted above, the Examiner has indicated claims 27, 28, and 32-34 include allowable subject matter. Claim 25 has been amended to include the features of claim 27. Claim 29 has been amended to include the features of claim 32. Therefore, the rejection of claims 25, 26 and 29-31 is moot.

Accordingly, Applicant respectfully requests the withdrawal of the 35 U.S.C. § 103 rejection of claims 2-3, 5, 8-9, and 25-31.

E. 35 U.S.C. § 103(a) Rejection over *Leavitt* in view of *Sipin*

On page 8 of the Office Action, claims 12 and 13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Leavitt* in view of *Sipin*. Applicant respectfully traverses the rejection.

Claims 12 and 13 both recite, in part, “configuring an ASIC.” The cited combination does not meet this feature of claims 12 and 13. The rejection does not rely on *Sipin* to meet the feature and, instead, relies on *Leavitt* to show configuring an ASIC. Specifically, the rejection cites *Leavitt* at item 210 to show an ASIC. However, *Leavitt* does not appear to teach configuring item 210. Should the Office persist in the rejection, citation to a specific portion of *Leavitt* showing configuring item 210 is respectfully requested.

Furthermore, claims 12 and 13 also recite, in part, “determining a number of channels for use in a data path.” The rejection admits that such feature is not taught by *Leavitt* and, instead, relies on *Sipin* at column 14, lines 45-46 to teach the feature. The cited portion of *Sipin* teaches calculating a maximum flow rate for a fluid flow channel. The cited portion of *Sipin* does not address channels for use in a data flow path. Rather, the cited portion of *Sipin* discusses fluid flow channels, which are not the same thing, nor even relevant to channels for use in a data flow

path. Not only does *Sipin* fail to provide the above-recited feature of claims 12 and 13, but *Sipin* is non-analogous art per M.P.E.P. §2141.01(a). Accordingly, Applicant respectfully requests the withdrawal of the 35 U.S.C. § 103 rejection of claims 12 and 13.

F. 35 U.S.C. § 103(a) Rejection over *Leavitt* and *Sipin* in further view of *Henderson*

On pages 9-10 of the Office Action, claims 14 and 19-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Leavitt* and *Sipin* in further view of *Henderson*. Applicant respectfully traverses the rejection.

As discussed above, the proposed combination of *Leavitt* and *Sipin* does not meet every aspect of independent claim 12. Dependent claims 14 and 19-20 each depend either directly or indirectly from independent claim 12 and, thus, inherit all of the limitations of independent claim 12. The rejection does not rely on *Henderson* to teach the features shown above to be missing with respect to claim 12. Thus, the cited combination of *Leavitt*, *Sipin*, and *Henderson* does not meet all claim limitations of claims 14 and 19-20. It is respectfully submitted that dependent claims 14 and 19-20 are allowable at least because of their dependence from claim 12 for the reasons discussed above. Accordingly, Applicant respectfully requests the withdrawal of the 35 U.S.C. § 103 rejection of claims 14 and 19-20.

V. Conclusion

In view of the above, Applicant believes the pending application is in condition for allowance.

Applicant believes no fee is due for this response. Please charge any fees required or credit any overpayment to Deposit Account No. 06-2380, under Order No. 65744/P018US/10404217 during the pendency of this Application pursuant to 37 CFR 1.16 through 1.21 inclusive, and any other sections in Title 37 of the Code of Federal Regulations that may regulate fees.

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